Complete Summary

TITLE

Shoulder functional status: mean change score in shoulder functional status with shoulder impairments receiving physical rehabilitation.

SOURCE(S)

Focus On Therapeutic Outcomes, Inc. (FOTO). Patient inquiry®: interactive health analysis® [CD-ROM]. Knoxville (TN): Focus On Therapeutic Outcomes, Inc. (FOTO®); 2006. 1 disc.

Measure Domain

PRIMARY MEASURE DOMAIN

Outcome

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the Measure Validity page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess functional status of patients who received outpatient rehabilitation through the use of self-report health status questionnaires. Because the measures are taken at intake, during, and at discharge from rehabilitation, change in functional status can be assessed. Measure results are available in Outcomes Profile Reports, which provide 1) information for clinicians to help direct and improve the care of their patients in real time during treatment, and once treatments are complete, 2) a comparison of the clinician's or facility's outcomes and the National Aggregate in the FOTO® Database.

RATIONALE

Collection of outcomes following clinical treatment is now commonplace in rehabilitation. (Hart 2002) Clinicians use outcomes to track changes in their

patients to assess if the patient is improving with a specific treatment, (Jette & Delitto 1997) if treatment needs to be changed or terminated, (Jette & Jette 1997) and if the patient needs to be referred to another clinician or service. (Jette & Jette 1997) Administrators use outcomes to compare their department's success with other similar departments, to market the department's services, to manage resources required to deliver their clinical services, and to manage their clinicians. (Marino 1997) Researchers analyze outcomes data for a variety of reasons including directing clinical education needs of providers, identifying clinical experts, etc. (Resnik & Hart 2003) The federal government has mandated the collection of outcomes for post-acute rehabilitation in skilled nursing facilities, nursing homes and in patient rehabilitation hospitals, and the government has directed the development of patient assessment instruments designed to collect outcomes in outpatient clinics. (Johnson 2001)

The process of outcomes management is evolving, and now many consider collection of functional status and health and well being the gold standard of outcomes measurement. Patient self-report of health status instruments, which quantify the client's perception of their functional abilities and health and well-being in standardized terms, have been recommended as outcomes tools for effectiveness research studies in rehabilitation. Standardized functional health status measures facilitate assessment of quality and value of clinical care. (Hart 2001)

PRIMARY CLINICAL COMPONENT

Functional status; physical rehabilitation

DENOMINATOR DESCRIPTION

All patients treated at a Focus On Therapeutic Outcomes (FOTO®) participating outpatient rehabilitation clinic for whom both admission and discharge self-report "Shoulder Functional Status Measure" questionnaires were completed.

NUMERATOR DESCRIPTION

The mean of patients' change scores on the "Shoulder Functional Status Measure."

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Unspecified

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Accreditation
Collaborative inter-organizational quality improvement
Decision-making by consumers about health plan/provider choice
Decision-making by health plans about provider contracting
Internal quality improvement
Quality of care research

Application of Measure in its Current Use

CARE SETTING

Ambulatory Care
Ancillary Services
Hospitals
Long-term Care Facilities
Managed Care Plans
Physician Group Practices/Clinics
Rehabilitation Centers

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Allied Health Personnel
Occupational Therapists
Physical Therapists

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

TARGET POPULATION AGE

Age greater than or equal to 14 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Musculoskeletal impairments account for a larger percentage of conditions for which medical care is sought in the United States (U.S.), and a large proportion of the cost associated with this care is related to the disability caused by these impairments. In 1984, Cunningham and Kelsey reported the overall prevalence of musculoskeletal impairments using data from the National Health and Nutrition Examination Survey (NHANES) I. In the U.S., 32.6% of persons between the ages of 25 and 74 years were affected by some type of physician-observed musculoskeletal impairment, and 29.7% of the population had self-reported musculoskeletal impairments. Impairments related to the spine had the highest prevalence. In the National Medical Care Utilization and Expenditure Survey (NMCUES), about 20% of the 1980 noninstitutionalized population reported having a musculoskeletal problem involving the back or joints that resulted in some type of disability or use of the health care system.

Out of 318,427 patients who were treated for orthopedic impairments in 2000-2002 in 552 outpatient rehabilitation clinics participating in the FOTO outcomes process in 40 states, 3.6% had hip impairments, 14.6% had knee impairments, and 6.4% had foot/ankle impairments. From a utilization perspective, they received 9.7±7.7 (mean, SD) visits (range 2 to 100 visits) over 36.4±31 (mean, SD) calendar days duration (range 2 to 365 days).

EVIDENCE FOR INCIDENCE/PREVALENCE

Hart DL. (Director of Consulting and Research, FOTO: Focus on Therapeutic Outcomes, Inc. Knoxville, TN). Personal communication. 2005 Aug 1. 2 p.

Jette DU, Jette AM. Physical therapy and health outcomes in patients with spinal impairments. Phys Ther1996 Sep;76(9):930-41; discussion 942-5. PubMed

ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

BURDEN OF ILLNESS

Unspecified

UTILIZATION

In the United States (U.S.), 10.9% of all medical office visits are primarily for musculoskeletal pathology or impairments, with 2% of all visits for back symptoms.

(see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

EVIDENCE FOR UTILIZATION

Jette AM, Delitto A. Physical therapy treatment choices for musculoskeletal impairments. Phys Ther1997 Feb;77(2):145-54. PubMed

COSTS

The National Medical Care Utilization and Expenditure Survey (NMCUES) indicated that 13.3% of total charges for treatment of musculoskeletal conditions was attributed to care given by health care professionals other than physicians, including physical therapists. The cost of health care related to the treatment of musculoskeletal impairments accounted for 8% of total health care expenditures in 1980, ranking third among health problems in terms of costs for civilian noninstitutionalized individuals.

EVIDENCE FOR COSTS

Jette DU, Jette AM. Physical therapy and health outcomes in patients with spinal impairments. Phys Ther1996 Sep;76(9):930-41; discussion 942-5. PubMed

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

All patients treated at a Focus On Therapeutic Outcomes (FOTO®) participating outpatient rehabilitation clinic.

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions
All patients with shoulder impairments treated at a Focus On Therapeutic Outcomes (FOTO®) participating outpatient rehabilitation clinic for whom both admission and discharge self-report "Shoulder Functional Status Measure" questionnaires were completed.

Exclusions
Patients less than 14 years of age

Patients unable to communicate in English, Spanish, Hebrew, Arabic, Russian, or French, or patient does not have a translator/proxy who can communicate in English, Spanish, Hebrew, Arabic, or Russian

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Therapeutic Intervention

DENOMINATOR TIME WINDOW

Time window precedes index event

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions
The mean of patients' change scores on the "Shoulder Functional Status Measure."

Exclusions
Unspecified

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Episode of care

DATA SOURCE

Patient survey

LEVEL OF DETERMINATION OF QUALITY

Not Individual Case

OUTCOME TYPE

Functional Status

PRE-EXISTING INSTRUMENT USED

None

Computation of the Measure

SCORING

Weighted Score/Composite/Scale

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Analysis by subgroup (stratification on patient factors, geographic factors, etc.)
Risk adjustment devised specifically for this measure/condition

DESCRIPTION OF ALLOWANCE FOR PATIENT FACTORS

Measure outcomes are risk-adjusted by care type, impairment type, severity, acuity, age, and surgical history.

Also, Focus On Therapeutic Outcomes (FOTO®) offers participants the option of adding custom reports to their standard outcomes profile. Some common sorts for these custom reports are by clinician, referral source, payment source, or International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) code.

STANDARD OF COMPARISON

External comparison at a point in time
External comparison of time trends
Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

The Shoulder Functional Status measure uses an ever expanding item bank of shoulder functional status items originally developed by analyzing the 60 items from the Shoulder Flexi-Scale (Cook et al 2003). Twenty three items were deleted

because factor analytic and model testing results did not support keeping them. The unidimensionality and local independence of the remaining 37 items and the hierarchical structure, content validity, person reliability and separation were supported. The functional status measure generated using the computerized adaptive testing (CAT) process were 84% more efficient than using all 37 items, and the known group construct validity of the CAT measures was supported. Internal consistency reliability was supported as well. Studies are ongoing to expand the item bank by adding more condition-specific items designed to increase or maintain measure precision while reducing respondent burden.

EVIDENCE FOR RELIABILITY/VALIDITY TESTING

Hart DL, Cook KF, Mioduski JE, Teal CR, Crane PK. Simulated computerized adaptive test for patients with shoulder impairments was efficient and produced valid measures of function. J Clin Epidemiol2006 Mar;59(3):290-8. [57 references] PubMed

Identifying Information

ORIGINAL TITLE

Shoulder functional status measure.

MEASURE COLLECTION

Patient Inquiry® Software

DEVELOPER

Focus On Therapeutic Outcomes, Inc.

FUNDING SOURCE(S)

Focus On Therapeutic Outcomes, Inc. (FOTO) was solely responsible for funding the research used to develop the Shoulder Functional Status measure.

COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE

The research team that developed and tested the Shoulder Functional Status measure was led by Dennis L. Hart, PT, PhD, Director of Consulting and Research, FOTO, Knoxville, TN. Other members of the research team included: Karon F. Cook, PhD, currently Professor, Department of Rehabilitation Medicine, University of Washington, Seattle, WA, but was Researcher, Veteran's Affairs Measurement Excellence, Training Research & Information Center (METRIC), U.S. Department of Veterans Affairs, Houston, TX at the time of development; Cayla R. Teal, PhD, Post Doctoral Fellow, Houston Center for Quality of Care & Utilization Studies, Baylor College of Medicine and Michael E. DeBakey Veterans Affairs Medical Center, Houston, TX, and Department of Medicine, Baylor College of Medicine, Houston, TX; Paul K. Crane, MD, MPH, Professor, Division of General Internal

Medicine University of Washington School of Medicine, Seattle, WA; and Jerome E. Mioduski, MS, Programmer, FOTO, Knoxville, TN.

FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST

Dr. Hart is an investor in and an employee of Focus On Therapeutic Outcomes, Inc. (FOTO). Mr. Mioduski is an employee of FOTO. Dr. Cook, Dr. Teal and Dr. Crane received no financial rewards and will receive no financial rewards from their work in the projects associated with the development and testing of this measure. Therefore, Dr. Cook, Dr. Teal and Dr. Crane have no financial interests or conflicts of interest in FOTO or the outcomes FOTO collects.

ENDORSER

National Quality Forum

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

2006 Jun

MEASURE STATUS

This is the current release of the measure.

SOURCE(S)

Focus On Therapeutic Outcomes, Inc. (FOTO). Patient inquiry®: interactive health analysis® [CD-ROM]. Knoxville (TN): Focus On Therapeutic Outcomes, Inc. (FOTO®); 2006. 1 disc.

MEASURE AVAILABILITY

The individual measure, "Shoulder Functional Status Measure," is available in the Patient Inquiry® software, which may be obtained by contacting Provider Relations at, Focus On Therapeutic Outcomes, Inc. (FOTO®) at 800-482-3686. You may also download a Patient Inquiry Demo from the FOTO Web site.

For additional technical support, visit the FOTO Web site at http://www.fotoinc.com/support.htm.

COMPANION DOCUMENTS

Focus On Therapeutic Outcomes, Inc. (FOTO). Patient Inquiry™ demo tour [version 5.0]. Knoxville (TN): Focus On Therapeutic Outcomes, Inc. (FOTO®); 8 p. This document is available in Portable Document Format (PDF) from the FOTO Web site.

NQMC STATUS

This NQMC summary was completed by ECRI on September 7, 2006. The information was verified by the measure developer on September 14, 2006.

COPYRIGHT STATEMENT

For more information, contact FOTO, Inc., phone: 800-482-3686; e-mail: judyholder@fotoinc.com; Web site: http://www.fotoinc.com.

Disclaimer

NQMC DISCLAIMER

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